

Discussion

Verrucous carcinoma has been the subject of a debate concerning its diagnostic features and mode of treatment since its discovery^(1,4). It is a differentiated variant of squamous cell carcinoma and may present diagnostic difficulties as it may be erroneously diagnosed as squamous papilloma⁽¹¹⁾. Determining the DNA content by nuclear cytometry on Feulgen-stained histologic sections has been reported to be diagnostically useful in detecting cells with abnormal DNA content in VC; this finding may be helpful in differentiating VC from benign lesions⁽¹²⁾. Recording nuclear size with image analysis has been suggested to be helpful in differentiating VC from squamous papilloma, as the cells in VC are, in general, larger (>300 µm) than those in papillomas (<250 µm)⁽¹¹⁾. D240 is a monoclonal antibody directed against podoplanin, which is a 38 kDa type-1 transmembrane glycoprotein⁽¹³⁾ which has been reported to be expressed occasionally in normal epidermal basal cells⁽¹⁴⁾. It is widely used as a specific marker for lymphatic endothelial cells and lymphangiogenesis in many species, as podoplanin is expressed on lymphatic but not on blood vessel endothelium⁽¹⁵⁾ which was demonstrated in the lymphatic and vascular endothelial cells in this study, moreover; it has been reported to be upregulated in human squamous cell carcinomas⁽¹⁴⁾. This study is the first of its kind describing IHC of D240 monoclonal antibodies verrucous carcinoma in comparison to squamous cell papilloma. Previous studies were either based on cytomorphological features or counting mitotic figures^(11,12), immunohistochemical staining with D240 showed positivity confined to the basal cell layer in all the samples of squamous cell papillomas whereas the positive staining in verrucous carcinoma samples involved all the layers of epithelium, reflecting the disparity of the epithelia amid the lesions and facilitating their differentiation. The resulting staining pattern could be attributed to normal physiologic regeneration within basal cell layer in normal

epithelium and, in this study; squamous cell papilloma epithelium.

Consequently, and with no statistical analysis required, this method of comparative staining could be used to differentiate verrucous carcinomas from squamous cell papillomas.

References

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